STATE OF MARYLAND

DHMH

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December 29, 2010

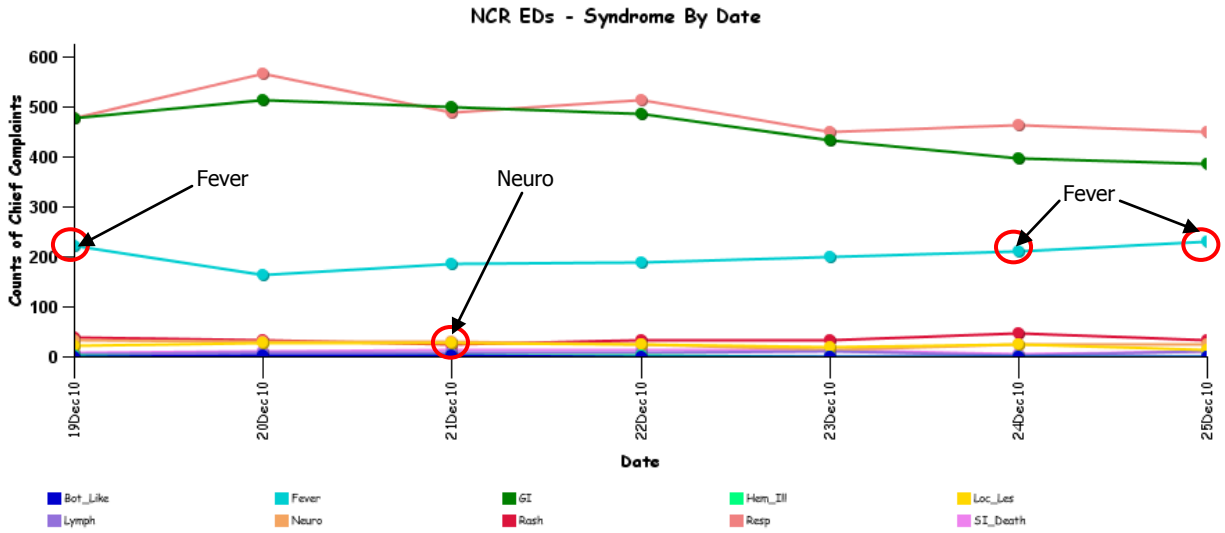
Public Health & Emergency Preparedness Bulletin: # 2010:51
Reporting for the week ending 12/25/10 (MMWR Week #51)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

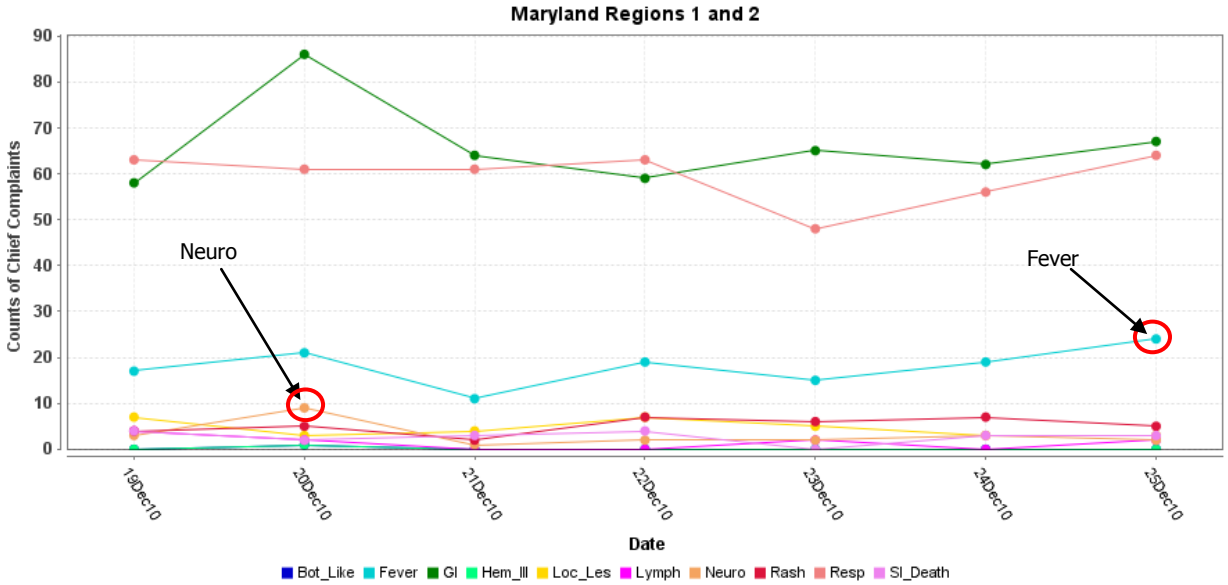
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

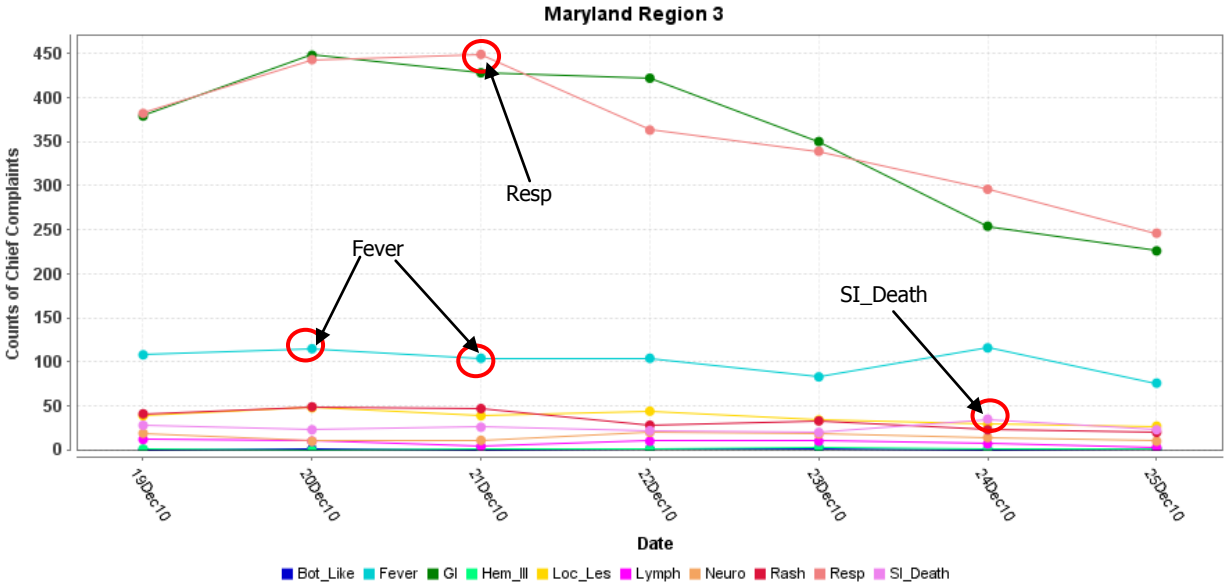


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

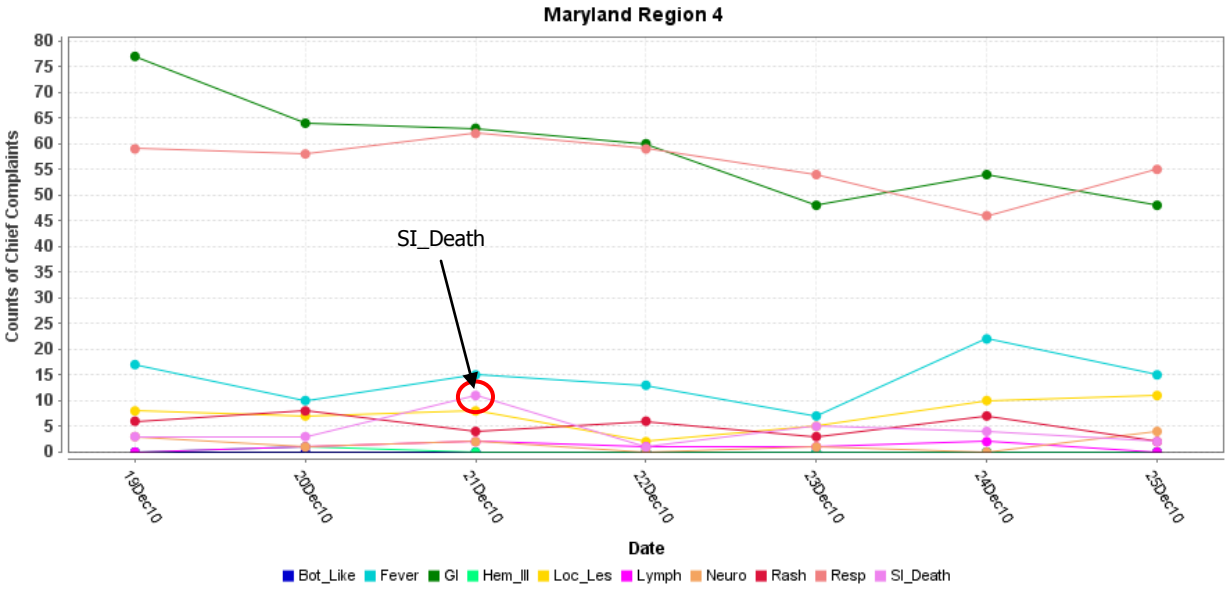
MARYLAND ESSENCE:



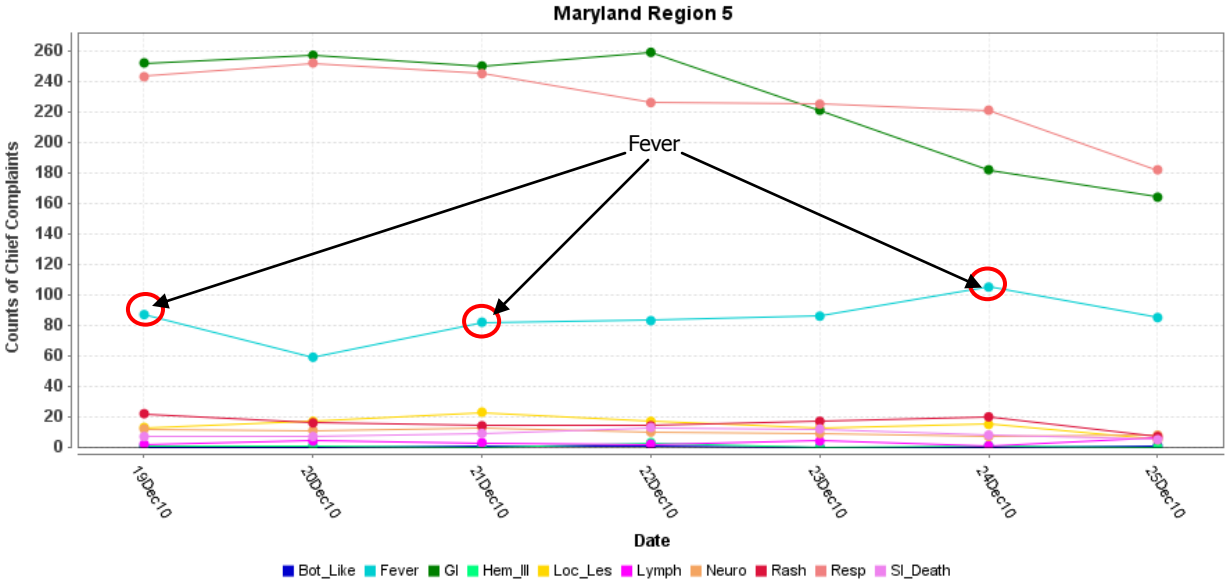
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



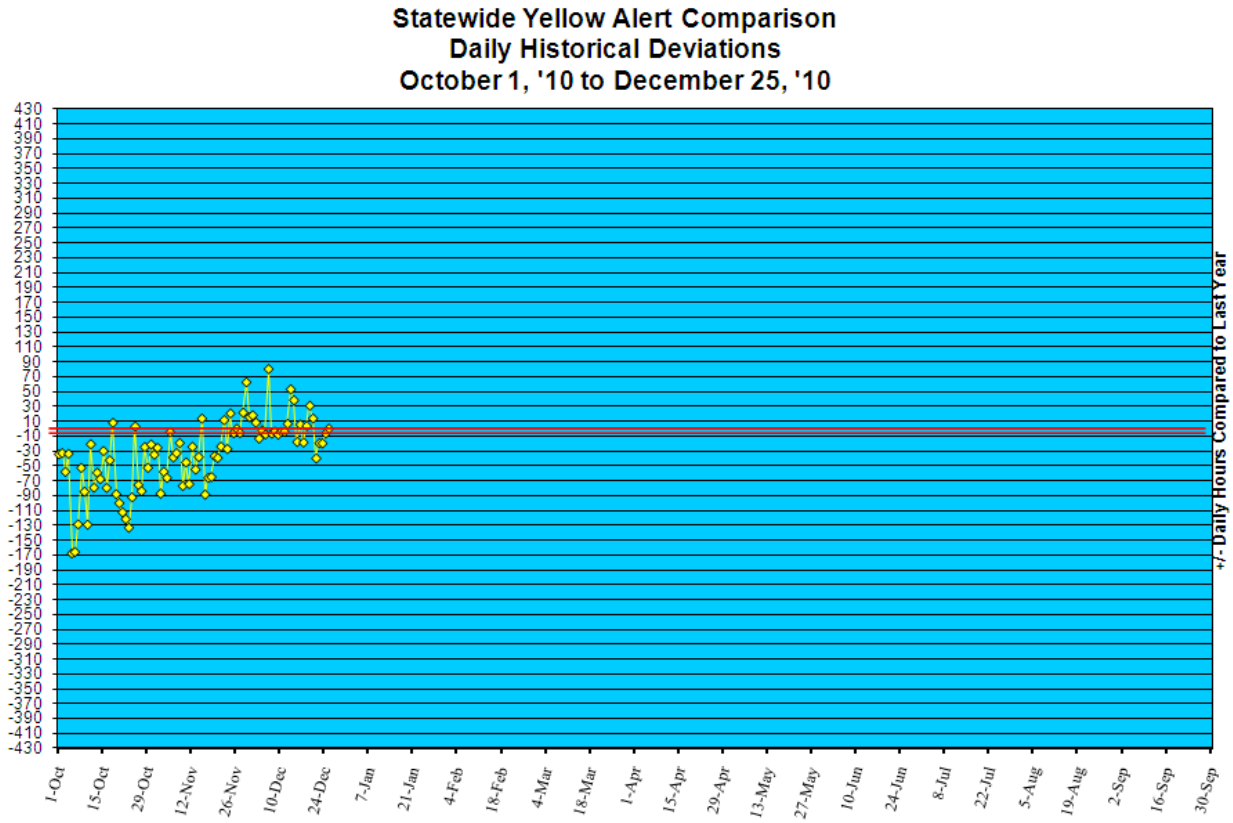
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in November 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (December 19 – December 25):	17	0
Prior week (December 12 – December 18):	4	0
Week#51, 2009 (December 20 – December 26, 2009):	8	0

One outbreak was reported to DHMH during MMWR Week 51 (December 19 – December 25, 2010):

1 Gastroenteritis outbreak
1 outbreak of GASTROENTERITIS in an ASSISTED LIVING FACILITY

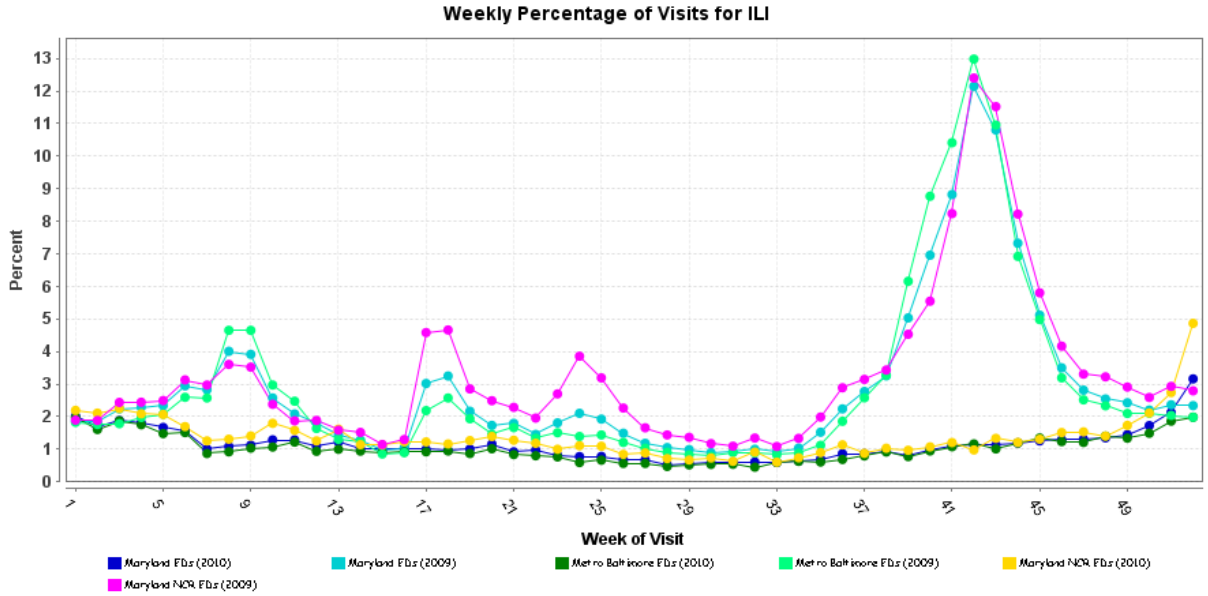
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity was SPORADIC with minimal intensity for Week 51.

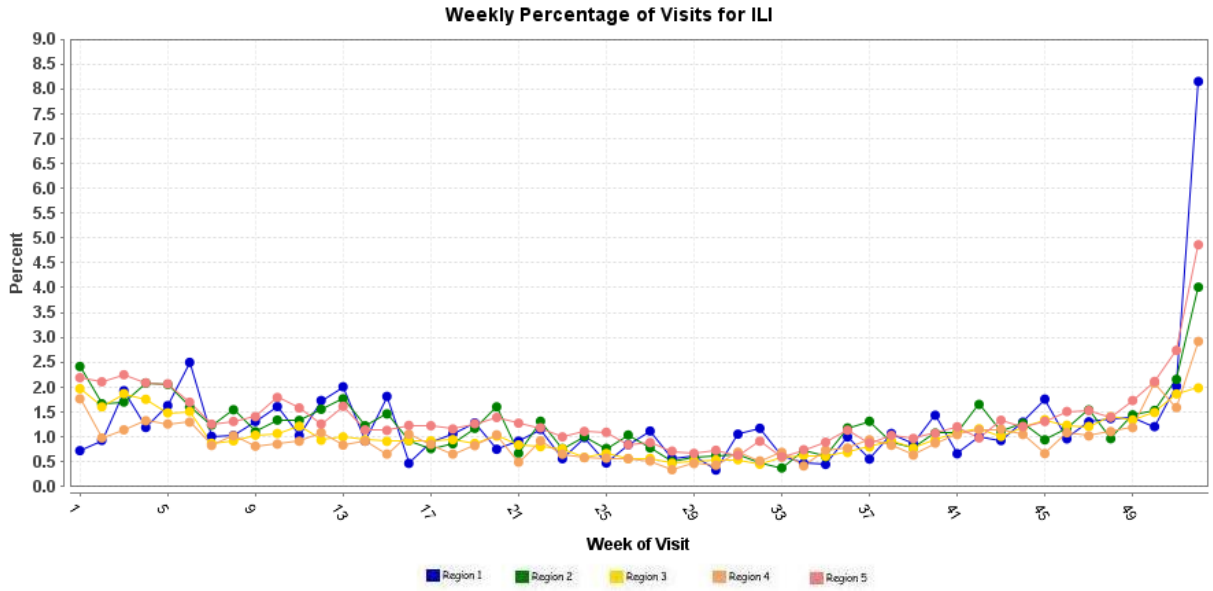
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



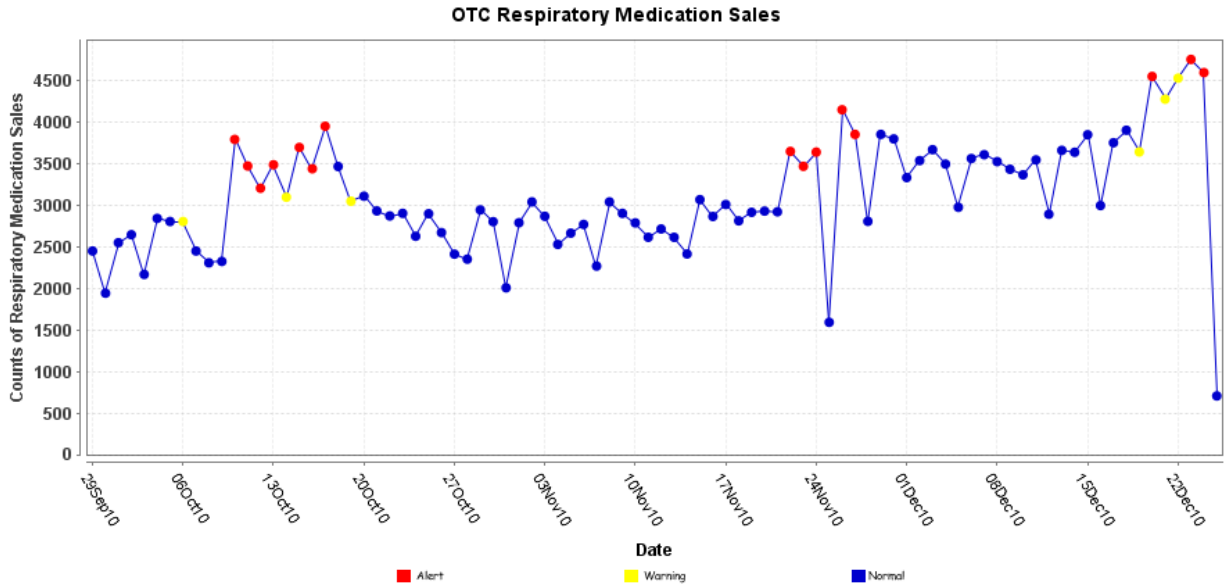
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of December 9, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 510, of which 303 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

AVIAN INFLUENZA, HUMAN (EGYPT): 23 December 2010, Dr. Abdel Rahman Shaheen, official spokesman of the Ministry of Health, reported the discovery of a new human case of bird flu. The case is an 11-year-old child resident in Luxor governorate. He added that this case is the 115th in Egypt since the outbreak of the disease in Egypt [in 2006]. Dr. Shaheen said the girl had entered a hospital in Luxor governorate suffering from high fever, cough, difficulty in breathing and pneumonia. She had been exposed to birds suspected to have been infected with avian influenza. The girl had received immediate Tamiflu treatment and was placed on a respirator. Her condition is now critical.

AVIAN INFLUENZA, HPAI H5, ZOO BIRDS (JAPAN): 21 December 2010, It is confirmed on 19 Dec 2010 that a captive wild mute swan (Cygnus olor) in Toyama prefecture was infected with HPAI. On 16 Dec 2010, a staff member of the Takaoka Old Castle Park Zoo discovered 2 dead mute swans in a moat. The local veterinary service centre in the prefecture confirmed a sample taken from the dead birds was influenza A virus positive by antigen-capture kits on the same day. On 19 Dec 2010, the National Institute of Animal Health affirmed by HI test that the case was due to influenza A virus subtype H5 and found that the amino acid sequence of the connecting peptide of the haemagglutinin was the same as known highly pathogenic avian influenza. Neuraminidase inhibition assay are being carried out. On 20 Dec 2010, the institute confirmed the case as highly pathogenic avian influenza because the isolate caused 75 percent mortality in 4-week-old chickens infected intravenously. The isolate is a closely-related strain to the viruses isolated from faeces of migratory wild ducks in Hokkaido in October 2010 and the cases that occurred in Shimane prefecture in November 2010. The zoo destroyed all captive wild birds kept in the moat for its own protection on 18 Dec 2010. Although a total of 4 dead birds were found, 3 of them were negative by antigen-capture kits.

AVIAN INFLUENZA, LPAI, H7N2 (SOUTH KOREA): 19 December 2010, Epidemiological comments: As part of a continuous avian influenza surveillance programme, samples (faeces, laryngo-pharyngeal swabs) were collected from a poultry farm on 7 Dec 2010. HA test result in Chungcheongnam-do Veterinary Research Institute was positive on 16 Dec 2010. The NVRQS found avian

influenza antigen (H7) by PCR on 16 Dec 2010 and confirmed it as low pathogenic avian influenza virus (H7N2) by gene sequencing on 17 Dec 2010. Ducks and chickens in the farm were culled on 16 Dec 2010. There is no other poultry farm within the area of 500m radius from the farm.

NATIONAL DISEASE REPORTS

STAPHYLOCOCCAL FOOD POISONING, BAKERY (ILLINOIS): 24 December 2010, The Illinois Department of Public Health (IDPH), working with the CDC, the FDA and other state health departments, is investigating several foodborne outbreaks in which people report becoming ill after consuming desserts from Rolf's Patisserie in Lincolnwood, Illinois. There have been 4 recent outbreaks where one of the dessert items has come from Rolf's Patisserie. Approximately 100 people have reported becoming ill after consuming Rolf's desserts at a company event, a catered party, a restaurant and holiday party. Rolf's is a wholesale and retail sales bakery. Rolf's Patisserie is working closely with IDPH, and the bakery is temporarily closed while these outbreaks are investigated. Rolf's is voluntarily recalling all products made after 1 Nov 2010. The bakery is contacting retailers and restaurants to remove and discard these products from their shelves. Both Rolf's and public health officials are advising people not to eat these food items and throw them out. IDPH is working to obtain a distribution list, but individuals or businesses may have already purchased goods for the holidays, so it is important to ask where the dessert is from and avoid consuming desserts from Rolf's made after 1 Nov 2010. Initial laboratory testing shows one food item to be contaminated with high levels of Staphylococcus aureus. Food can becomecontaminated if a person with a staph infection has an uncovered lesion or sore that comes in contact with food or food processing equipment. Staphylococcus aureus bacteria and toxin can contaminate foods or equipment. Staphylococcal enterotoxins are fast acting, sometimes causing illness in as little as 30 minutes but usually in 4-6 hours, with nausea, vomiting, stomach cramps, and little if any fever. The patients usually recover within a day. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS, SEROTYPE I 4,5,12,i-, SPROUTS (USA): 24 December 2010, CDC is collaborating with public health officials in many states and FDA to investigate a multistate outbreak of Salmonella enterica serotype I 4,[5],12:i:- infections. Investigators are using DNA analysis of bacteria obtained through diagnostic testing to identify cases of illness that may be part of this outbreak. From 1 Nov 2010 to 21 Dec 2010, a total of 89 individuals with a matching strain of S. enterica serotype I 4,[5],12:i:- have been reported from 15 states and the District of Columbia. The number of ill people identified in each state with the outbreak strain is as follows: Connecticut (1), District of Columbia (1), Georgia (1), Hawaii (1), Iowa (1), Illinois (50), Indiana (9), Massachusetts (1), Missouri (14), New York (1), Pennsylvania (2), South Dakota (1), Tennessee (1), Texas (1), Virginia (1), and Wisconsin (3). Among 81 persons for whom information is available, illness onset dates range from 1 Nov to 14 Dec 2010. Case-patients range in age from 1-75 years, with a median age of 28. 68 percent of patients are female. Among persons with available information, 23 percent reported being hospitalized. No deaths have been reported. Because the pulsed-field gel electrophoresis (PFGE) pattern associated with this particular serotype commonly occurs in the USA, some of the cases identified may not be related to this outbreak. Public health officials in multiple states have been interviewing ill persons to obtain information regarding foods they might have eaten and other exposures in the week prior to illness. Preliminary results of this investigation indicate a link to eating alfalfa sprouts at a national sandwich chain. This investigation is ongoing. CDC, FDA, and state and local public health partners are continuing surveillance to identify new cases and trace potentially contaminated product. CDC will update the public on the progress of this investigation as information becomes available. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

HANTAVIRUS (CHILE): 24 December 2010, The ISP [Public Health Institute] confirmed a case of [a] hantavirus [infection] in the [Coyhaique] region. A 25-year-old patient remains in the Intensive Care Unit of the Regional Hospital and is making a positive improvement. After the samples were sent to the Institute of Public Health (ISP) in Santiago, the presence of [a] hantavirus was confirmed, after [laboratory] tests, in a young man who remains hospitalized in Coyhaique Regional Hospital. To date, the patient has been admitted to the ICU where he is making positive progress, said Aysen Health SERMI [Regional Ministerial Secretariat] epidemiologist, Marco Acuna. "He has been disconnected from the ventilator today [22 Dec 2010], took off the mask, is breathing spontaneously, is recovering, and the progress has been favorable," said the expert. The patient, aged 25, was hospitalized for severe pneumonia, so health personnel followed protocols, given suspicions of the disease from the symptoms presented. An investigation has also been taking place from the epidemiological perspective. To prevent such infections during the tourist season, when people have greater contact with the outdoors, storage buildings are being cleaned. Marco Acuna said they have detected considerable proliferation of wild mice associated with the flowering of quila [a perennial bamboo that grows in the humid temperate forests of Chile and Argentina]. Consistent with earlier recommendations to the inhabitants of rural areas on preventing the entry of rodents [into buildings], people should maintain a sanitary area [around the buildings], keep the grass short, and do not place firewood within 30 meters of storage buildings and homes. "In the case of people who undertake rural activities such as hiking and camping, they should establish their camps in open places, not adjacent to forests and brushy areas, keep to established paths, and protect food in rodent-resistant containers," said Acuna. He also said that special care must be taken by workers who go to summer houses that have been closed for months. These [buildings] must be ventilated, opened to sunlight, and chlorinated water should be used to moisten surfaces, floors and furniture before sweeping to avoid infections. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

HANTAVIRUS (FRENCH GUIANA): 24 December 2010, A resident of Macouria died this week of a pulmonary infection with [a] hantavirus. This is the 3rd case identified in Guyana [French Guiana] since 2008 and the 2nd this year [2010]. Last March 2009, a 58-year-old man living in a residential area of Remire-Montjoly died of infection with [a] hantavirus, a virus carried by wild rodents. The Pasteur Institute of Guyana has caught rodents in the neighborhood where the victim lived: some of them carried the virus

effectively. This time, the victim lived in Macouria. The location of the contamination and the rodent species involved here are being investigated by the Regional Agency of Health and the Institut Pasteur in French Guiana. They may never be identified; several weeks can elapse between infection and onset of symptoms. "In humans, hantavirus infection is rare and not contagious. Frequently, the disease does not present any danger. As in the entire American continent or in France, the virus may be present in various species of rodents, exposing other sporadic cases in Guyana, but cases are rare", said the Regional Health Agency in Guyana. These viruses are transmitted by several species of rodents, which, in Guyana, are Zygodontomys brevicauda and Oecomys bicolor. The virus is transmitted to humans through contact with saliva or feces of these animals, by inhalation of contaminated dust, especially during cleaning work in places which are left shut up and poorly ventilated, and by contact through eyes, nose or mouth after handling an animal or a surface contaminated by these rodents. One to 8 weeks after infection, a flu-like syndrome (fever, muscle pain, fatigue) appears. Respiratory distress appears and sometimes leads to death. There is no preventive treatment, so people should avoid contact with rodents and their excreta. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN (SCOTLAND): 24 December 2010, An outbreak of anthrax that claimed the lives of 13 drug addicts has officially been declared over, but the contaminated heroin that caused it could soon be back on the streets. The 1st cases of anthrax poisoning were reported in December last year [2009], and there were a total of 47 cases of anthrax poisoning among heroin users over the next 7 months, including 5 in Fife and 6 in Tayside. There were a total of 13 deaths caused by the contaminated drug, including 2 in Tayside and one in Fife. However, no new cases of anthrax poisoning have been reported since July 2010, and the national Outbreak Control Team (OCT) has now officially declared the outbreak over. Yet consultant epidemiologist and chairman of the OCT Dr Colin Ramsay said that although the outbreak has been declared over, there is still a risk of users purchasing contaminated heroin. "Anthrax infection must continue to be considered a risk when taking heroin," he said. "There is still no way to prepare or use heroin that will remove this risk, so our advice must be to avoid heroin use. Anyone who does continue to use heroin should seek urgent medical advice if they develop redness and swelling at injection sites or other symptoms of general illness such as fever, chills or a severe headache, as early antibiotic treatment can be life-saving. Marked swelling of a limb which has been used as an injection site is a particularly important sign of possible anthrax infection." But Gareth Balmer, project manager of drugs support agency Addaction, warned that more of the contaminated heroin could still enter circulation. He said dealers could have put the anthrax-infected heroin into storage until the scare has passed. "It is really difficult, because we never really discovered where this heroin came from," he said on Thursday [23 Dec 2010]. "There have been a lot of heroin supply problems recently because of a fungus affecting the Afghan crop and a lot of big police seizures. The contaminated heroin may have been stockpiled, and if there is a drought, it could be sold. If people are desperate, they will use anything." He added: "We will continue to advise people that there is a risk. Anthrax will be another item on our list of the dangers of heroin." (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

CHOLERA (HAITI): 24 December 2010, Haiti's cholera death toll since the mid-October 2010 outbreak in the impoverished Caribbean nation has reached 2591, official figures showed Wednesday [22 Dec 2010]. Health ministry figures as of 17 Dec 2010, the most recent day recorded, showed that 121 518 people have been treated for cholera. At the outbreak's peak in November 2010, there were daily death tolls of 80 and above. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

CHOLERA (DOMINICAN REPUBLIC): 24 December 2010, Of the 82 people who have contracted cholera in the Dominican Republic, 75 have totally recovered and are going about their daily routine in different parts of the country. The Public Health Ministry said Thursday [23 Dec 2010] that only 7 people are currently hospitalized and are in stable condition, with their release expected by the weekend. In a statement, Public Health added that as the result of the intensive search by the National Epidemiology System, 9 more cases were detected in 5 provinces. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

FOODBORNE ILLNESS, FATAL (JAMAICA): 24 December 2010, An Argentinean tourist is dead while 10 other visitors to the island have been admitted to hospital in St. Ann suffering from suspected food poisoning. The group, which comprises tourists from the USA, Japan, Italy, as well as 4 visiting Jamaicans, was staying at a villa in the neighboring parish of St. Mary when they consumed a meal of fish and potato salad late on 22 Dec 2010. Following the meal, they all became extremely ill. They were rushed to hospital where a doctor confirmed that the Argentinean visitor had died. His identity was not released. One of the other tourists is said to be in critical condition. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

PLAGUE (TANZANIA): 22 December 2010, Authorities in Mbulu District, Manyara Region, are scrambling to contain an outbreak of plague, an infectious disease spread by rodents. Reports say at least 7 people have been admitted to a special center set up specifically to treat people who have contracted the disease. No deaths have been reported so far. The district commissioner, Mr. Anatory Choya, said that the outbreak had so far only been reported in areas bordering the government forest reserve at the edge of the Rift Valley, and that it should be contained before spreading to other areas in the district. However, Mr. Choya hinted that the situation was worrying because he had been notified that the disaster management unit in the PMO was short of funds. "The outbreak could worsen with the coming of the rainy season," he said, adding that areas where the disease outbreak has been reported included Tumati in Dong'obesh Division, Murai (Mandisi) and Nandes Ward near the district headquarters. The acting district medical officer, Dr Elirehema Lakey, said plague had been breaking out frequently in the district, adding that this was a matter of "grave concern". He said experts from the Sokoine University of Agriculture (SUA) had been involved in research on rodents in the area where vermin numbers swell before the onset of rains. Several people died in the last 2 plague outbreaks in the district last year and 2007. (Plague is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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